



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,235	11/29/2003	David R. Hall	66.0042	1234

26932 7590 08/25/2005

JEFFREY E. DALY
GRANT PRIDECO, L.P.
400 N. SAM HOUSTON PARKWAY EAST
SUITE 900
HOUSTON, TX 77060

EXAMINER

COLLINS, GIOVANNA M

ART UNIT

PAPER NUMBER

3672

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/707,235	Applicant(s) HALL ET AL.	
	Examiner Giovanna M. Collins	Art Unit 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-12 and 14-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-2,4-5,10-12,14-15 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Graaf 4,220,381, in view of Denison 4,095,865 and Donnelly et al. 6,526,506.

Van der Graaf discloses (fig 3) a liner insertable into the central bore of a downhole tool, the central bore being characterized by a standard diameter along the central portion of the tool the liner comprising a resilient material (31") and discloses a transmission line (30") is routed between the central bore and the outside diameter of the resilient material. Van der Graaf does not disclose the liner is a sheet or the drill tool has a narrowed diameter at the ends. Denison teaches (fig. 1) a downhole tool with narrower diameter at the ends. This type of configuration is well known in the art. Donnelly teaches (fig. 1) a liner (3) that is a resilient sheet material rolled in a cylindrical shape and is self expandable within a downhole tool (col. 1, lines 50-58). As, it would be advantageous to have the liner be a sheet material that can easily fit in various sizes of downhole tool and can be expanded without the use of an expansion tool and one of ordinary skill in the art would be familiar with downhole tool with narrower diameter at the ends, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the liner disclosed by van der Graaf to have a self expandable

Art Unit: 3672

resilient sheet roll into a cylindrical shape and be inserted in a downhole tool with narrower diameter at the ends as taught by Donnelly and Dennison.

Referring to claims 2 and 12, Donnelly teaches the resilient material (3) expands the outside diameter of to contact the inside surface of a central bore (col. 2, lines 54-60).

Referring to claims 4 and 14, van der Graaf discloses the resilient material (31") keep the transmission line (30") in contact with the inside surface of the central bore.

Referring to claims 5 and 15, van der Graaf discloses resilient material (31") protects the transmission line from material traveling through the bore.

Referring to claim 10, van der Graaf, as modified, discloses the resilient material (31") is capable of being maintained in place by shoulders in the downhole tool.

Referring to claims 11 and 20, van der Graaf discloses the method for lining the central bore of a downhole tool comprising inserting a resilient material into the central bore of the tool and protecting and retaining a transmission line routed between the central bore and the outside diameter of the resilient material. Van der Graaf does not disclose rolling the resilient material or expanding or the drill tool has a narrowed diameter at the ends. Denison teaches (fig. 1) a downhole tool with narrower diameter at the ends. This type of configuration is well known in the art. Donnelly teaches a liner that is a resilient sheet material rolled in a cylindrical shape and is expandable by resiliency within a downhole tool. As, it would be advantageous to have the liner that is rolled that can easily fit in various sizes of downhole tool and can be expanded without the use of a expansion tool and one of ordinary skill in the art would be familiar with

Art Unit: 3672

downhole tool with narrower diameter at the ends, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the method disclosed by van der Graf to have resilient sheet roll into a cylindrical shape and expanded by resiliency and be inserted in a downhole tool with narrower diameter at the ends as taught by Donnelly and Denison.

Referring to claim 17, Donnelly teaches the resilient material comprises two mating surfaces (7) that mate to form the cylindrical shape.

Referring to claim 18, Donnelly teaches moving the mating surfaces (7) changes the diameter of the material.

Referring to claim 19, Maimets teaches sealing the mating surfaces (col. 3, lines 1-5).

2. Claims 6-9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Graaf 4,220,381, in view of Denison 4,095,865 and Donnelly '506 as applied to claims 1 and 11 and further in view of Penza '612.

Referring to claims 6 and 16, van der Graaf does not disclose a channel in the resilient material. Penza teaches (fig. 18) a channel (1809) in a resilient material to help accommodate transmission lines. As it would be advantageous to have a channel to help run the transmission line, it would be obvious to one of ordinary skill in the art at the time of the invention to further modify the liner and method disclosed by van der Graaf to have a channel as taught by Penza.

Art Unit: 3672

Referring to claim 7, Donnelly teaches the resilient material comprises two mating surfaces (7) that mate to form the cylindrical shape.

Referring to claim 8, Donnelly teaches moving the mating surfaces (7) changes the diameter of the material.

Referring to claim 9, Donnelly teaches sealing the mating surfaces (col. 3, lines 1-5).

Response to Arguments

Applicant's arguments with respect to claims 1-2,5-12,14-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 3672

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna M. Collins whose telephone number is 571-272-7027. The examiner can normally be reached on 6:30-3 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


gmc


David Bagnell
Supervisory Patent Examiner
Technology Center 3670